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GROWING BICOLOR LESPEDEZA IN SOUTHEASTERN STATES

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Twenty years ago, bicolor or shrub lespedeza (Lespedeza bicolor) was grown only to a limited extent in the United States. At that time it was propagated as an ornamental. Today, this Asiatic legume is grown extensively for bobwhite-quail food and cover. About 50 million seedlings are produced annually for planting on southern farms.

Bicolor's sudden rise in popularity is well deserved. It produces an abundance of seeds which are readily eaten by the bobwhite, provides cover, and is comparatively easy to grow. Bicolor does well from southern Pennsylvania west to Missouri and south to Texas and Florida. Though not regarded as a cure-all for local scarcity of quail, it has won recognition as a valuable asset in bobwhite habitat.

Location and Soils

Plantings of bicolor along woodland margins fit particularly well into farming operations since cultivated crops generally do poorly in these locations, owing to competition with tree roots. Furthermore, lespedeza borders help to prevent the encroachment of trees along field edges. Bicolor strips may also be successful in comparatively open woodlands.

Best soils for this shrub lespedeza are well-drained silty, sandy, or clay loams. Planting is not recommended on poorly drained or alluvial soils or alkaline lands as found in the Black Belt of Alabama and Mississippi. Fertilizer should be applied before planting, the amount depending on natural fertility of the soil. On best sites, an initial application of 300 to 400 pounds of 0-14-10 or its equivalent per acre is recommended. Higher rates, up to 1,000 pounds per acre, may be needed on poor, eroded soils. On sandy soils, good strips have been established with applications of 1,600 pounds per acre. The use of nitrogen is suggested on poorer soils and on loamy or deep sands.



## Planting

Planting sites should be prepared well in advance so the soil can settle. If many strips are to be established, fall preparation is recommended. Plantings for quail should consist of five rows with spacing between rows 30 to 36 inches, depending on width of cultivator used. Plants may be set 18 inches apart in the row. A strip 300 feet long planted in this pattern will require 1,000 seedlings and cover one-tenth of an acre.

Planting 1-year-old seedlings is preferable to sowing seed in field strips. If seeds rather than plants are used, they should be sown in a nursery plot to produce seedlings. Hand weeding, usually necessary when seeds are used, is easier in a small nursery plot than in a larger field strip. In transporting or transplanting seedlings, roots should not be allowed to get warm or dry. Shipments of stock may be heeled-in temporarily, until planting time. Seedlings may be set out in fall and winter when other farm jobs are not pressing. November to April is the best time.

Various methods of planting have produced good stands. Setting plants with the aid of a spade is best, though laborious. A practical, time-saving way is to open a furrow with a turnplow, place the plants rather deep (at least 4 inches below their former level) against the vertical side of the trough, and then cover the roots with another furrow. The soil should be firmed about the roots in some manner. This can be accomplished easily by running the tractor wheel alongside the plants.

## Maintenance

### First Year

Strips should be cultivated at least twice the first summer to eliminate weed competition.

To be considered successful, a bicolor planting after 1 year should be free of weeds, make at least 5 feet of growth and produce a seed crop. Yield tests on year-old strips indicate seed production up to 350 pounds per acre. At the end of subsequent growing seasons, seed yields should be 300 to 400 pounds per acre and growth should reach 6 to 8 feet. If a strip fails to attain this height, a light seed crop can be expected, and the planting is nearly worthless to quail. Furthermore, it is essential that seeds fall on soil reasonably free of weeds if they are to be available to quail. Bobwhites do not scratch deep, so seed must be easily found.

At the end of the first growing season it usually is necessary to cut back bicolor stems 6 to 8 inches above the ground. As a result, each plant produces several stems the following summer and makes a denser shade which helps in weed control.

## Second and Later Years

All bicolor plantings require periodic maintenance. The extent or frequency of such operations depends upon the soil and its fertility. Deterioration of bicolor stands is indicated by the following symptoms: (1) Invasion by broomsedge or other weeds, (2) short terminal growth, (3) light seeding. All these signs usually are evident when a strip is declining.

Fertilizing and cutting back are two maintenance operations necessary after the planting is established. In some localities, fire has been used successfully to thicken bicolor stands. Winter burning of dead tops may result in increased sprouting from crowns the following spring. Strips on good soils should be given attention once every 3 years. On poor lands having most of the topsoil removed, annual maintenance may be necessary.

Maximum benefit from fertilizer is generally accomplished by mixing it into the soil with a disk. A well-established bicolor plant can withstand rough treatment. In addition, use of a disk in strips is effective in cutting back bicolor stems, and at the same time destroys broomsedge crowns and weeds which may have become established. Thus, application of fertilizer helps assure sufficient bicolor growth in subsequent years to shade out weeds and grass. Rates for maintenance application may vary from 200 pounds of 0-14-10 fertilizer per acre on good soil to 1,000 pounds per acre on poor land.

Information on source of plants and seeds usually may be obtained from State game departments or from local Soil Conservation Service officials or county agricultural agents.

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